

**DEPARTMENT OF TRANSPORTATION****DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-002670**Date Inspected:** 20-May-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 1400**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 2300**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Ye Yong Jun**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Caltrans OBG, Tower**Summary of Items Observed:**

Caltrans Quality Assurance (QA) Inspector, Ken Jobes, arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai, China, to randomly monitor welding and Quality Control (QC) functions. While on site, the QA Inspector observed and/or discovered the following:

**OBG - Bay 2**

The Caltrans QA Inspector randomly observed the machining of the weld bevel on stiffener (Member I. D. p327B) for Tower deck plate. See picture below.

**OBG - Bay 3**

The Caltrans QA Inspector also randomly observed the fitting of WT stiffeners on Bottom Plates BP 32 and BP 88, the fitting of knife stiffeners on Side Plates SP 84A and SP 85A, and the thermal straightening of Side Plate SP 85.

**OBG - Bay 4**

The Caltrans QA Inspector also randomly observed the machine Submerged Arc Welding (SAW) of fill passes on Weld No. NSD1-SA333 A/B-A1 A2 by welding operator Jang Jing Teng (I. D. No. 046830), using Welding Procedure Specification (WPS) No. WPS-B-T-3221-B-U3c-S. The welding of Weld No. ESD1-SA78-1B by welding operator Wu Zhi Bin (I. D. No. 049804), using WPS-B-T-2221-B-U3c-S was also observed. Both welds

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were being made in the flat groove (1G) welding position. Certified Welding Inspector (CWI), Ye Yun Jun (CWI No. 07031461) was present during this welding as was ABF QA Inspector Li Hanjie. The QA Inspector verified the qualifications of the welding operators.

The Caltrans QA Inspector also randomly observed the fitting and tacking of flanges to internal diaphragms at three work stations. Tacking was being performed in the vertical groove (3G) welding position using the shielded metal arc welding (SMAW) process. See picture below.

### OBG - Bay 7

The Caltrans QA Inspector also randomly observed the SMAW repair of visually detected defects on Floor Beams FB 4A and FB 013, the fitting and tack welding of Weld No. FB030-001-079 on Floor Beam FB 010 using SMAW, and the flux cored arc welding (FCAW) repair of ultrasonically detected defects on Weld No. FB01-007-023 (Weld Repair No. B-WR359-1G).

All above observations appeared to meet the requirements of the job specifications.



### Summary of Conversations:

As identified within the contents of this report.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Jobes, Kenneth
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Quality Assurance Inspector
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<b>Reviewed By:</b>	Cochran, Jim
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QA Reviewer
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